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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,094	01/31/2002	Steven Teig	SPLX.P0080	6006
23349	7590	11/19/2004	EXAMINER	
STATTLER JOHANSEN & ADELI			GARBOWSKI, LEIGH M	
P O BOX 51860			ART UNIT	PAPER NUMBER
PALO ALTO, CA 94303			2825	

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/066,094

Applicant(s)

TEIG ET AL.

Examiner

Leigh Marie Garbowski

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) (2 sheets)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7 sheets. 8/20/04; 5/18/04; 4/16/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-4, 6, 8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Lee et al. [U.S. Patent #4,812,419].

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Leuschner [U.S. Patent #4,724,471].

Claims 3-4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kim [U.S. Patent #4,342,045].

Claims 3-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hause et al. [U.S. Patent #6,137,182].

Claims 6-9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Eden et al. [U.S. Patent #5,620,916].

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Irinoda [U.S. Patent #5,726,499].

Claims 1-2 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Egitto et al. [U.S. Patent #6,522,014 B1].

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Goerlach et al. [U.S. Patent #6,787,905 B1].

Claims 6-9 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Goda et al. [U.S. Patent Application Publication #2001/0002713 A1].

Claims 1-9 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Katz [U.S. Patent #6,310,398 B1].

Claims 1-9 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Huang et al. [U.S. Patent #6,441,494 B2].

Claims 1-9 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Nagasaka et al. [U.S. Patent #6,300,683 B1].

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Broadbent [U.S. Patent #5,063,175] disclose circular vias. Smith et al. [U.S. Patent #5,055,966] disclose multilayer circuit structures with circular vias. Pohland et al. [U.S. Patent #6,596,466 B1] disclose that effects can give rise to circular shape. Jang [U.S. Patent #6,229,214 B1] disclose shapes for contact holes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh Marie Garbowski whose telephone number is 571-272-1893. The examiner can normally be reached on days.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LEIGH M. GARBOWSKI  
PRIMARY EXAMINER